Appended Form 1

Specifications for Major Program

Name of School (Program) [School of Pharmaceutical Sciences (

subjects with the Program of Pharmaceutical Sciences as fundamental subjects, information literacy basics and seminars, and foreign languages focusing on communication. Also, the first step is designed to allow students to

Furthermore, science classes for supplemental education that student did not chose for their individual scholastic ability tests are also prepared.

In the second step, set as the basis of education in pharmaceutical sciences, students will take basic specialized subjects in line with the common educational models and core curricula in pharmaceutical sciences in the Program in Pharmaceutical Sciences. At the same time, students will acquire the basics of experimenting by completing practices in all the fields of pharmaceutical sciences starting from basic chemical practice. In the third step, more specialized lectures are arranged and allocated as elective subjects so that students can acquire the knowledge required for pharmaceutical sciences to become their field of expertise in the future. In the fourth step, to take part in research in their desired field of expertise, students will select graduation research from Basic Research I, II, and III by being divided into groups to be assigned to each classroom. In the assignment of students to each classroom,

raduation research is an introduction to conducting advanced research in a graduate school at a later date, in which the class content is taken into consideration so that students can acquire sufficient knowledge and skills. During the fourth step, Lecture of Program of Pharmaceutical Sciences will be allowed to choose the related lectures.

The student who chose a program by English for finding employment in foreign countries can meet completion requirements by choosing "B" in the language column of the syllabus.

3. Diploma policy (policy for awarding degrees and goal of the program)

The Program of Pharmaceutical Science will approve the graduation of, and award the degree Bachelor (medicinal sciences) to, students who have acquired the capabilities described below, and earned the required credits defined for the educational course:

1) The fundamental skills and wide-ranging intelligence required for studying medicine science, such as those related to physics, chemistry, biology, mathematics, and ethics;
2) The fundamental knowledge and skills regarding such things as major reactions, separation methods, and structure determination methods, that are required for understanding the reactivity of chemical substances including medicines and biological materials, and the ability to explain and exercise that knowledge and those skills;
3) The fundamental knowledge and skills regarding the structure and mechanisms of function coordination in living bodies that are required for understanding the constitution of the living body at various levels, such as the individual body, an organ in the body, and a cell in the organ, and ability to explain and exercise that knowledge and those skills;
4) The fundamental knowledge, skills, and attitude regarding such matters as the effect of a medicine on a disease, mechanisms of action, and metabolic end result that are required for understanding the processes of the pharmacological action of medicines, and the ability to explain and exercise that knowledge, those skills, and that attitude;
5) The capability to explain basic and applied knowledge of drug therapy;
6) Fundamental knowledge, skills, and attitude regarding the effect of medicines and chemical substances on a human being and the effect of living environment and global ecosystem on human health, and the ability to explain and exercise that knowledge, and those skills;

7) The ability to the identify the problem and show the direction toward that solution in order to play an active role as a passionate researcher who can flexibly meet diversifying social needs;

8) The fundamental capability to identify new information and knowledge, and to autonomously improve one's ability, in order to keep up with progress in pharmacology, science, and medical areas;

4. Curriculum policies (policies for organizing & providing curricula)

In the Medicinal Sciences Program, curricula are planned based on the following policies with the aim of developing scientists and engineers with an enriched humanity and broad education based on its educational principles:

1) To allow students to acquire fundamental knowledge and basic study ability in a wide variety of areas, the curriculum provides the peace study subjects, fundamental subjects for university education, disciplinary subjects, foreign language subjects, information and data science subjects, health and sports subjects, society-related subjects, and fundamental subjects, structured in such a way as to provide those subjects to the whole university;

2) To allow students to systematically learn the specialized methodology and knowledge, the curriculum provides subjects for early experience, humanism in communication, the structure and characteristics of materials, natural medicine resources, and the mechanisms and functionality of living bodies as specialized fundamental subjects;

3) Set subjects related to effects of medical supplies, internal kinetics of medical supplies, health & environment, adjustment of preparations & management of medical supplies, illness and disease states, operations of a pharmacist, pharmaceutical affairs-related laws and regulations, and experimental techniques as specialized subjects for students to choose from to foster the expertise required to achieve their career aims,

4) Set graduation research as a required subject and provide detailed individual guidance to enable students to integrate the knowledge and skills they have acquired, and to foster scientific thinking that will be linked to the solution of problems and creation of new values,

5) Establish a certain standard for assignment to a laboratory,

6) The achievement in education is evaluated based on grade scores for the subjects, and the level of achievement against the target defined for the Program of Medicinal Sciences.

7) Certain criteria are established for the allocation of students to laboratories, and for qualification for Type-1 High School Teaching License (science);

5. Start time and acceptance conditions

Students select (start) this program in the first year.

6. Obtainable qualifications

a) Type-1 High School Teaching License (science)

b) Drug distributors, engineers responsible for medical equipment manufacturers and import & sales offices, technical managers of garbage disposal facilities, pollution control managers related to noise, dust, and vibration, engineers controlling environmental hygiene in buildings, and managers of water supply technologies

7. Class subjects and their contents

For class subjects, refer to the subject table in Sheet 1. (The subject table is to be attached.)

For the details of the class subjects, refer to the syllabus that is published each academic year.

8. Academic achievement

The evaluation criteria are specified for each evaluation item for academic achievement, and the achievement level against these criteria is designated for each academic year.

The academic achievement, from when the student enters our university to the end of the last semester, is represented based on the average of evaluation scores for each evaluation item. The evaluation score for each subject is converted to a numerical value (S = 4, A = 3, B = 2, and C = 1) and the evaluation standard for the academic achievement is determined using these values while applying weightings.

Achievement evaluation	Numerical conversion
S (Excellent:90 or more points)	4
A (Very good: 80 - 89 points)	3
B (Good: 70 - 79 points)	2
C (Passed: 60 - 69 points)	1

of this Program will be judged.

Implementing the assessment (relationship with class assessment will also count.)

Achievements in this Program will be assessed based on these criteria in the second semester of the fourth year. At the same time, a questionnaire on program assessment will be distributed each semester.

conducted every year.

The educational effect shall be assessed in a comprehensive manner based on the evaluations of academic achievement and the achievement levels of students who have studied on this Program, and GPA.

A social assessment shall be conducted by checking the employment rates in companies (such as medical supply, chemical, food, and cosmetic companies) and government offices that are closely related

Program. We then ask graduates to assess themselves and the Program.

The idea and method of feedback for students

At regular intervals, the faculty council in charge distributes questionnaires to and holds interviews with students to inspect and assess the Program, and submits an improvement plan for the Program to the Educational Evaluation Committee and the resulting Improvement Report to the Bachelor Course

Program are checked and assessed, and the results are used to improve the Program. These results are fed

will be fed back for every class through the Momiji questionnaire on class assessment.

Table of Registration Standards for Liberal Arts Education Subjects

Medicinal Sciences Program

Type	Subject type			Required No. of credits	Class subjects, etc.	No. of credits	Type of course registration	Year in which the subject is taken(Note 1)							
								1st grade		2nd grade		3rd grade		4th grade	
								Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
Liberal Arts Education Subjects	Peace Science Courses			2		2	Required			○					
	Common subjects: Basic Courses in University Education	Introduction to University Education		2	Introduction to University Education	2	Required	○							
		Introductory Seminar for First-Year Students		2	Introductory Seminar for First-Year Students	2	Required	○							
		Area Courses		4	Courses in Arts and Humanities/SocialSciences	2	Elective/required	○	○						
		(Note 8)		4	Courses in Natural Sciences	2	Elective/required		○						
		Foreign Languages: English (Note 2)	Communication Seminar	2	Communication Seminar I	1	Required	○							
					Communication Seminar II	1			○						
			Communication I	2	CommunicationIA	1	Required	○							
					Communication IB	1		○							
			Communication II	2	Communication IIA	1	Required		○						
					Communication IIB	1			○						
		Foreign Languages: Non-English Foreign Languages (Select one language from German, French and Chinese)(note 3)		0	Basic Foreign Language I	1	Free elective	○							
					Basic Foreign Language II	1		○							
					Basic Foreign Language III	1			○						
					Basic Foreign Language IV	1			○						
		Information and Data Science Courses		2	Elements of Information Literacy(Note 4)	2	Required	○							
		Health and Sports Courses		2		1or2	Elective/required	○	○						
		Social Cooperation Courses		0		1or2	Free elective	○	○						
	Foundation Courses (Note 8)			6	Psychology for Medical Care Workers(Note 5)	2	Required		○						
					Statistics	2			○						
					Anatomy for understanding human being I	1			○						
					Anatomy for understanding human being II	1			○						
				2	Foundation physics for life science(Note 6)	2	Elective/required	○							
					Foundation biology for life science(Note 7)	2		○							
				4	Species Biology	2	Elective/required	○							
					Basic Calculus	2		○							
					Basic Linear Algebra	2			○						
					2 subjects from the three subjects above										
Total(Liberal Arts Education Subjects)				36											

Note 1: The indicated semester represents that in which students typically take the subject. If they have failed to earn the credit in the semester, it is allowed to take the subject after the semester. It is required to confirm the semester in which the subject is provided in the class schedule for liberal arts education subjects that is published every academic year, because some subjects might be provided in a semester other than that which is shown in this document.

Note 2: The credits for "Field Research in the English-speaking World" that are earned through such activities as a short-term study abroad, and those for "Online English Seminar A" and "Online English Seminar B" that are earned through a program of self-study, are accepted as the credit for English required for graduation (6 credits). Achievement in a foreign language skill test and language training might be accepted as credit. For the details, refer to the description regarding English subjects in the liberal arts education and the item "Credit based on Achievement in Foreign Language Skill Test" in the Students Handbook.

Note 3: Although 4 credits of "Basic Foreign Language" are not included as those required for graduation, it is recommended to earn those credits.

Note 4: It is required to take the subject "Elements of Information Literacy" that is provided in the first year. Only when failing to earn the credit for "Elements of Information Literacy" is the credit for the subject "Exercise in Information Literacy" accepted as that for the information and data science subjects required for graduation (2 credits).

Note 5: It is required to take the subject "Psychology for Medical Care Workers" that is provided in the first year. Only when failing to earn the credit for "Psychology for Medical Care Workers" is the credit for the subject "Psychology A" or "Psychology B" accepted as that for the information subjects required for graduation (2 credits).

Note 6: Students who did not take the subject "Physics" in the National Center Test for University Admissions are required to take the subject "Foundation physics for life science."

Note 7: Students who did not take the subject "Biology" in the National Center Test for University Admissions are required to take the subject "Foundation biology for life science."

Note 8: Of the 4 credits required for the disciplinary subjects (Courses in Arts and Humanities/SocialSciences), 2 credits are required to be earned for the subject "Ethics."

In order to obtain an Educational Staff License, students must complete the "Japanese Constitution" in the area subjects and " Introduction to Earth and Planetary Sciences A" and " Introduction to Earth and Planetary Sciences B" in the Specialized Education of other faculties.

Table of Registration Standards for Specialized Education Subjects

Medicinal Sciences Program

Type	Subject type	Lesson Style	Required No. of credits	Class subjects, etc.	No. of credits	Type of course registration	Year in which the subject is taken							
							1st grade		2nd grade		3rd grade		4th grade	
							Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
Specialized Education Subjects	Basic Specialized Subjects	Lecture	44	Practical English for Pharmaceutical Students	2	Required				②				
				Introduction to Pharmaceutical Sciences	2			②						
				General Chemistry	2		②							
				Pharmaceutical Analysis	2			②						
				Nuclear Pharmacy	2				②					
				Organic Chemistry IA	1		①							
				Organic Chemistry IB	1		①							
				Biochemistry I	2			②						
				Biochemistry II	2			②						
				Biological Chemistry III	2				②					
				Public Health Chemistry I	2				②					
				Basic Kampo Medicine	2					②				
				Microbiology	2				②					
				Public Health Chemistry II	2				②					
				Pharmaceutical Physical Chemistry	2				②					
				Bio-Analytical Science	2				②					
				Natural Products Chemistry	2				②					
				Biological Chemistry IV	2				②					
				Biopharmaceutics	2					②				
				Biochemistry V	2					②				
				Organic ChemistryⅡA	1			①						
				Organic ChemistryⅡB	1			①						
				Pharmacology I	2					②				
				AnOutline of Pathology	2								②	
			Total(Basic Specialized Subjects)		44		4	10	18	10			2	
	Specialized Subjects	Seminar	(2)	Practice for clinical food science	2	Free elective							2	
			2	Research Practice A	1	Required					①			
				Research Practice B	1							①		
			Total(Required Subjects(Seminar))		2						1	1		
			1	Practice of Structural Elucidation	1	Elective/required Ⅰ							1	
				Practice of xenobiotics and molecular toxicology	1								1	
				Practice of Organic Reactions	1								1	
				Practice of Microbiology	1								1	
				Practice of Drug Delivery System	1								1	
				Practice of Analytical Drug Discovery and Evaluation	1								1	
				Practice of Biochemical Pharmacology	1								1	
				Practice of Clinical Pharmacy	1								1	
			Total(Elective/required Ⅰ(Seminar))		8								8	
			Total (Seminar)		12						1	1	10	
		Lecture	(2)	Clinical food science	2	Free elective							2	
			18	Pharmacology II	2	Required				②				
				Herbal medicine & Kampo medicine	2						②			
				Pharmacokinetics	2						②			
				Biochemistry VI	2					②				
				Biophysical Chemistry	2						②			
				Antibiotics and Drug resistance	2						②			
				Physiological Chemistry	2						②			
				Organic Chemistry III	2				②					
				Medicinal Organic Chemistry	2						②			
			Total(Required Subjects(Lecture))		18				2	4	12			
			8	Industrial Pharmaceutics	2	Elective/required Ⅱ						2		
				Cell Motility	2							2		
				Genetic Engineering	2							2		
				Organic Chemistry IV	2					2				
				Public Health Chemistry III	2							2		

Type	Subject type	Lesson Style	Required No. of credits	Class subjects, etc.	No. of credits	Type of course registration	Year in which the subject is taken							
							1st grade		2nd grade		3rd grade		4th grade	
							Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
				Biological Statistics	2							2		
				Pharmacology III	2						2			
				Pharmacology IV	2							2		
				Clinical Pharmacy	2								2	
				Clinical Medicine and Pharmacotherapy I	2								2	
				Pharmacotherapy A	2								2	
				AnOutline of Immunology	2								2	
				Clinical Medicine and Pharmacotherapy II	2									2
				Pharmaceutical Affairs Related Laws	2								2	

Academic achievements of Medicinal Sciences Program

Relationships between the evaluation items and evaluation criteria

Academic achievements			Evaluation criteria		
Evaluation items			Excellent	Very Good	Good
Knowledge and Understanding	(1)	The knowledge of chemical compounds including medicine.	1. Being able to name representative components and correctly write down the structural formula. 2. Being able to select chemical reaction. 3. Being able to correctly announce results gained by clarifying used procedure or process. 4. Being able to enumerate additives used for medical drug production and to explain their roles and physicochemical character. 5. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 80%.	1. Being able to name representative components and correctly write down the structural formula. 2. Being able to select appropriate chemical reaction. 3. Being able to announce results gained by clarifying used procedure or process. 4. Being able to explain the roles of additives used for medical drug production and their physicochemical character. 5. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 70%.	1. Being able to name representative components and correctly write down the structural formula. 2. Being able to explain the outline the proposed chemical reaction. 3. Being able to present and announce outlines of used process and procedures. 4. Being able to explain the roles of additives used for medical drug production and their physicochemical character. 5. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 60%.
	(2)	Knowledge of human and biological bodies.	1. Being able to enumerate characteristics of representative enzyme and explain the characteristics of reaction comparing to general chemical reaction. 2. Being able to enumerate representative physiological active substances and explain their productive organs, physiological functions, mechanism of secretion adjustment and the related diseases. 3. Being able to briefly explain major human body's protective reaction mechanism in the level of tissue, cells and molecules . 4. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 80%.	1. Being able to enumerate characteristics of representative enzyme and explain the characteristics of reaction comparing to general chemical reaction. 2. Being able to enumerate representative physiological active substances and explain their productive organs, physiological functions, mechanism of secretion adjustment and the related diseases. 3. Being able to briefly explain major human body's protective reaction mechanism in the level of tissue, cells and molecules . 4. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 70%.	1. Being able to compare characteristics of representative enzyme reaction to general chemical reaction and explain them. 2. Being able to explain productive organs, physiological functions and mechanism of secretion adjustment of representative physiological active substances. 3. Being able to briefly explain major human biophylaxis reaction. 4. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 60%.
	(3)	The knowledge relating to mutual reaction between chemical compounds including medicine and a human body	1. Being able to enumerate and explain basic matters on nutrition, metabolism, food safety, and hygiene which are necessary for health maintenance. 2. Being able to enumerate and explain about basic matters chemical effects to humans and relation between living environment and ecology and human health. 3. Being able to enumerate representative medicine and to explain basic matters on the action mechanism and the destiny in human body. 4.The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 80%.	1. Being able to enumerate and explain basic matters on nutrition, metabolism, food safety, and hygiene which are necessary for health maintenance. 2. Being able to enumerate and explain about basic matters chemical effects to humans and relation between living environment and ecology and human health. 3. Being able to enumerate representative medicine and to explain basic matters on the action mechanism and the destiny in human body. The standard is more than 70%.	1. Being able to explain basic matters on nutrition, metabolism, food safety, and hygiene which are necessary for health maintenance. 2. Being able to enumerate and explain about basic matters chemical effects to humans and relation between living environment and ecology and human health. 3. Being able to enumerate presented medicine and to explain basic matters on the action mechanism and the destiny in human body. 4. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 60%.
	(4)	Improving English comprehension to acquire capacity of chemical English	The level of achievement will be assessed based on a formula that includes the average points calculated based on the student's TOEIC score and an evaluation in class. 80% is minimum.	The level of achievement will be assessed based on a formula that includes the average points calculated based on the student's TOEIC score and an evaluation in class. 70% is minimum.	The level of achievement will be assessed based on a formula that includes the average points calculated based on the student's TOEIC score and an evaluation in class. 60% is minimum.
Abilities and Skills	(1)	Development of knowledge of chemical compounds including medicine. (application)	1. Being able to construct synthetic pathways indicating appropriate chemical reaction. 2. Being able to properly announce the acquired results specifying the process and ways. 3. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 80%.	1. Being able to construct pathways for synthesis combining appropriate chemical reaction among presented ones. 2. Being able to announce results gained by clarifying the used procedure and pathways. 3. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 70%.	1. Being able to construct pathways for synthesis combining presented chemical reaction. 2. Being able to announce results gained by clarifying the used procedure and pathways. 3. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 60%.
	(2)	Development of knowledge about human and biological bodies. (advance)	1. Being able to construct activity measurement methods of representative enzyme. 2. Being able to construct measurements of activation and secretion of representative physiological active substances. 3. Being able to explain major human biophylaxis reaction relating with diseases. 4. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 80%.	1. Being able to construct activity measurement methods of presented enzyme. 2. Being able to construct ways to measure activation and secretion of presented physiological active substances. 3. Being able to explain human biophylaxis reaction relating to diseases. 4. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 70%.	1. Being able to outline activity measurement methods of presented enzyme. 2. Being able to outline ways to measure activation and secretion of presented physiological active substances. 3. Being able to outline human biophylaxis reaction relating to diseases. 4. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 60%.
	(3)	Development of knowledge relating to mutual reaction between chemical compounds including medicine and a human body (application)	1. Being able to investigate current situation of nutrition in Japan, explain the issues using used data and propose the solution. 2. Being able to investigate examples of drug interaction, explain the mechanism and propose the way of avoidance. 3. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 80%.	1. Being able to investigate current situation of nutrition in Japan and explain the issues using used data. 2. Being able to investigate examples of drug interaction, consider the mechanism and propose the way of avoidance. 3. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 70%.	1. Being able to investigate current situation of nutrition in Japan and enumerate the issues. 2. Being able to investigate examples of drug interaction, consider the mechanism and select the appropriate way of avoidance. 3. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 60%.

Academic achievements			Evaluation criteria		
Evaluation items			Excellent	Very Good	Good
Abilities and Skills	(4)	Being able to read English chemical papers and discuss them. (application)	1. The learning attainment level is generally calculated combining grades, average scores of TOEIC tests and scores of graduation research based on designated formulae. The standard is more than 80%.	1. The learning attainment level is generally calculated combining grades, average scores of TOEIC tests and scores of graduation research based on designated formulae. The standard is more than 70%.	1. The learning attainment level is generally calculated combining grades, average scores of TOEIC tests and scores of graduation research based on designated formulae. The standard is more than 60%.
	(5)	To be able to basically treat major chemical agents, substances related to the living body, and microbes.	1. Being able to construct pathways for synthesis of compounds including representative functional compounds and to synthesize them. 2. Being able to construct fixing tests, ways of separate refinement, ways of constructive decision and to identify them. 3. Being able to construct separate cultivation measures and authentic cultivation measures of representative micro-organism and to carry out them. 4. Being able to construct identification measures of representative bacteria and to identify them. 5. Being able to construct various kinds of experiments on biological related materials. 6. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 80%.	1. Being able to construct pathways for synthesis combining presented chemical reaction and synthesize them. 2. Being able to construct ways of qualitative tests, separation and refinement, and structural determination and identify them. 3. Being able to construct ways of separate cultivation and authentic cultivation and conduct them. 4. Being able to construct ways of identification of presented bacteria and conduct them. 5. Being able to conduct various kinds of experiments relating presented biologically relevant materials and conduct them. 6. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 70%.	1. Being able to synthesize using pathways for synthesis combining presented chemical reaction. 2. Being able to identify using ways of qualitative tests, separation and refinement, and structural determination. 3. Being able to construct ways of separate cultivation and authentic cultivation and conduct them. 4. Being able to construct ways of identification of presented bacteria and conduct them. 5. Being able to conduct various kinds of experiments relating presented biologically relevant materials and conduct them. 6. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 60%.
	(6)	To be able to measure and evaluate major biological reactions.	1. Being able to construct activity measurement methods of representative enzyme and measure them. 2. Being able to construct measurements of activation and secretion of representative physiological active substances and measure them. 3. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 80%.	1. Being able to construct activity measurement methods of presented enzyme and conduct them. 2. Being able to construct ways to measure activation and secretion of presented physiological active substances and conduct them. 3. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 70%.	1. Being able to conduct activity measurement methods of presented enzyme. 2. Being able to conduct ways to measure activation and secretion of presented physiological active substances. 3. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 60%.
	(7)	Being able to collect assess information on medicine.	1. Being able to find out necessary information on medicine and to collect them by themselves and estimate them. 2. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 80%.	1. Being able to find out necessary information on medicine and to estimate them. 2. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 70%.	1. Being able to find out necessary information. 2. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 60%.
Attitudes	(1)	Having ability to act as member of a research team.	1. Being able to lead a team actively acting as a member of the team. 2. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 80%.	1. Being able to actively act as a member of a research team. 2. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 70%.	1. Being able to act as a member of a research team. 2. The learning attainment level is calculated as an average evaluation of grades based on designated formulae. The standard is more than 60%.
Comprehensive Abilities	(1)	1. The active attitude of dealing with issues on drug development and environmental hygiene. 2. The social responsibility as a specialist of drug development and environmental hygiene. 3. The comprehensive, scientific and calm attitude to solve problems. 4. The cooperative attitude in team research. 5. The ability to make communication and presentation. 6. The ability of assessment and analysis. 7. The active usage of information technology and the management ability. 8. The ethical consideration toward genetically modified foods and animal experiments	1. Being able to investigate and estimate the research results on issues so far. 2. Being able to select must-be-solved issues for the attainment of goals. 3. Being able to find issues by themselves and make a experiment plan. 4. Being able to carry out the experiments along with the plan. 5. Being able to integrate the results, consider them and present them. 6. Being able to integrate the results in reports or theses. 7. Being able to propose the next research issues based on their own research results. 8.The learning attainment level is comprehensively calculated based on designated formulae combining average evaluation of grades and results of graduation research . The standard is more than 80%.	1. Being able to investigate and estimate the research results on issues so far. 2. Being able to select must-be-solved issues for the attainment of goals. 3. Being able to make a experiment plan on proposed issues. 4. Being able to carry out the experiments along with the plan. 5. Being able to integrate the results, consider them and present them. 6. Being able to integrate the results in reports or theses. 7.The learning attainment level is comprehensively calculated based on designated formulae combining average evaluation of grades and results of graduation research . The standard is more than 70%.	1. Being able to investigate and estimate the research results on issues so far. 2. Being able to select must-be-solved issues for the attainment of goals. 3. Being able to carry out research based on experiment plans of proposed issues. 4. Being able to integrate the results, consider them and present them. 5. Being able to integrate the results in theses. 6.The learning attainment level is comprehensively calculated based on designated formulae combining average evaluation of grades and results of graduation research . The standard is more than 60%.

Placement of Liberal Arts Education in the Major Program

Liberal arts education in this Program shall play a role in establishing the academic base to receive specialized education, and is placed as education for cultivating scientific thinking on the basis of respect for a voluntary and independent attitude, and of information gathering capabilities, analytical capabilities, and critical power. Furthermore, it is expected through the liberal arts education of this Program to develop a problem-solving ability, to cultivate a linguistic ability, and to strengthen interest in matters related to peace. Through these processes, students will foster an enriched humanity, and acquire a broader education.